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March 17, 1995

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

**EX PARTE**

William F. Caton  
Acting Secretary  
Federal Communications Commission  
Mail Stop 1170  
1919 M Street, N.W., Room 222  
Washington, D.C. 20554

Dear Mr. Caton:

Re: ET Docket No. 94-124 - Use of Radio Frequencies Above 40 GHz; CC Docket No. 92-297 - Redesignation of 27.5-29.5 GHz

Yesterday, Carl H. Steffens, Manager, New Business Development, Pacific Telesis Enhanced Services, Keith J. Epstein, Vice President and Counsel, Legal and External Affairs, Pacific Bell Information Services, and Malcolm Ziegler, a consultant, and I met with Rudolfo A. Baca, Legal Advisor to Commissioner James H. Quello; Lisa B. Smith, Legal Advisor to Commissioner Andrew C. Barrett; Jill Luckett, Special Advisor to Commissioner Rachelle B. Chong; Karen Brinkman, Special Assistant to Chairman Reed E. Hundt; Robert James, Assistant for Microwave Services, and Susan E. Magnotti, Private Radio Division, Wireless Telecommunications Bureau; John Cimko, Jr., Chief, and Nancy Boocker, Legal Assistant to John Cimko, Jr., Policy Division, Wireless Telecommunications Bureau, to discuss issues raised in the above dockets summarized in the attached outline. Please associate these materials with the above-referenced proceedings.

We are submitting two copies of this notice in accordance with Section 1.1206(a)(1) of the Commission's Rules.

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William F. Caton  
March 17, 1995  
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Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions or require additional information concerning this matter.

Sincerely,



Attachment

cc: Rudolfo A. Baca  
Lisa B. Smith  
Jill Lockett  
Karen Brinkman  
Robert James  
Susan E. Magnotti  
John Cimko, Jr.  
Nancy Boocker

# **Local Multipoint Distribution Service**

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**Comments before the  
FEDERAL COMMUNICATIONS COMMISSION  
in re: ET Docket #94-124**

**Pacific Telesis Enhanced Services  
March 1995  
Washington, DC**

## We disagree with various proposals to move LMDS from 28 GHz to 40+ GHz

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### Background:

- ❑ Pacific Telesis has made a public commitment to provide advanced services to the State of California
  - Construction began on an advanced hybrid-fiber coax network in 1994
- ❑ We believe that wireless alternatives to the HFC network may represent viable and attractive options
  - Wireline build will not be possible immediately in all areas
  - LMDS may allow us to offer some advanced services ahead of our build
  - Wireless technologies, such as LMDS, provide a rapidly deployable infrastructure for services which will benefit consumers
- ❑ Newly allocated spectrum above 40 GHz should be used to provide additional capacity for advanced services

## We are optimistic that interference issues between LMDS and FSS can be resolved

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- ❑ LMDS system configuration suggests that interference should be minimal
  - LMDS systems will be highly directional, particularly at receive sites
  - Cooperative engineering between parties can eliminate most potential conflicts
- ❑ If interference issues cannot be resolved, we advocate the splitting of the 27.5-29.5 GHz band
  - Primary allocation of 1 GHz each to satellite and LMDS
  - LMDS could represent a secondary use in the FSS band and vice-versa, with the burden of interference resolution on the secondary application
- ❑ FSS plans are still largely on the drawing boards, with no proof yet of economic viability
  - Allocation entirely to satellite may result in spectrum laying fallow for a number of years while engineering and business plans are completed

## LMDS represents near-term competition to existing video-delivery systems

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- ❑ Consumers are anxious to take advantage of new video-delivery alternatives
  - The immediate success of Direct Broadcast satellite and acceptance of MMDS systems are indicative of a willingness to adopt alternatives
  - The benefits of competition in the video-services marketplace will accrue to consumers
- ❑ LMDS will evolve to include capabilities beyond those offered via current wireless systems
  - Advanced services will be necessary to compete in the future entertainment environment
  - Our view is that LMDS will support two-way, broadband applications
- ❑ Development of LMDS equipment has focused on 28 GHz
  - Moving the service to 40+ GHz would obsolete much of this work, delaying deployment of such systems by at least 12-18 months

## Higher frequencies for LMDS imply smaller areas of coverage for LMDS transmitters

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- ❑ Physical characteristics, such as rain attenuation, become more pronounced at 40+ GHz
  - We agree with comments that some physical properties, such as reflection, are very similar between 28 and 40 GHz
  - Rain-attenuation, however, causes a reduction in the coverage of LMDS transmitters and subscriber-site transceivers
- ❑ As the number of transmitters for a given area of coverage increases, system costs increase proportionately
  - Deployment may not be cost-effective in the near-term at 40+ GHz
  - Other issues, such as the location of transmitter sites, also apply

## In summary...

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- 1) Moving LMDS to 40+ GHz will result in delays in deployment of 12-18 months minimum
- 2) Equipment under development for use at 28 GHz will be obsolete, making near-term implementation difficult
- 3) Companies such as Pacific Telesis are currently executing plans which may incorporate LMDS
- 4) Ultimately, services like LMDS will benefit the public
- 5) Allocation of the 27.5-29.5 band to FSS only will maximize neither the public good nor the near-term economic value of spectrum